

The Reconnaissance Squadron and ISR Operations

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To guess at the intention of the enemy; to divine his opinion of yourself; to hide from both your intentions and opinions; to mislead him by feigned manoeuvres; to invoke ruses, as well as digested schemes, so as to fight under the best conditions—this is and will always be the art of war.

—Napoleon

AS THE U.S. ARMY continues to transform and until the Objective Force is finally realized, the Army has made great efforts to field an interim force—the interim brigade combat team (IBCT). This Transformation force will lead the Army into the future. The IBCT is a force-projection force that can rapidly deploy anywhere in the world to protect U.S. interests or serve the needs of the National Command Authority and regional commanders in chief. Designed specifically to conduct small-scale contingency operations in complex terrain against asymmetric tactics, the IBCT will be capable of responding to the country's needs.

The IBCT is a unique and lethal combined arms organization comprised of three infantry battalions, a reconnaissance (recce) squadron, a field artillery battalion, a brigade support battalion, an antitank company, an engineer company, a military intelligence company, and various other combat support elements. But, what truly makes the IBCT a lethal and effective combat force is its ability to achieve information superiority. With all elements in the IBCT connected via the Army Battle Command System (ABCS) and Force XXI Battle Command Brigade and Below (FBCB2), every echelon can gain and maintain situational awareness (SA), and can quickly pass and receive intelligence information and mission orders.

There are several unique aspects of the IBCT, but the most important is its ability to gain and main-

tain situational understanding of the battlefield. The primary means of achieving situational understanding is through intelligence, surveillance, and reconnaissance (ISR) operations. ISR is defined as "the integration and synchronization of all battlefield operating systems to collect and process information about the enemy and environment that produces relevant information to facilitate the commander's decisionmaking."¹ By achieving situational understanding, the brigade commander can best employ lethal and nonlethal effects to defeat an enemy force.

Emerging doctrine addresses an additional element of combat power—information. The IBCT's ability to gain information superiority and maintain information dominance will be critical to future military operations in an increasingly complex battlespace. In the future, the IBCT will conduct operations across the spectrum of conflict from major theater war to small-scale contingency operations to peacetime military engagements—facing adversaries that will range from conventional military forces, to paramilitary and guerrilla forces, to terrorists and organized crime groups. Additionally, as these threats attempt to gain an advantage over U.S. forces, the enemy will seek to attack U.S. forces using unconventional and asymmetric attacks while operating in varying types of terrain, including not only open, rolling terrain but also urban areas and severely restricted mountainous and heavily wooded terrain.

To ensure success on the future battlefield, commanders must achieve information superiority, defined as "the operational advantage derived from the ability to collect, process, and disseminate an uninterrupted flow of information while exploiting or denying an adversary's ability to do the same."² The ability to rapidly collect, process, and disseminate information enhances a commander's ability to make better military decisions,

Integrated echelons of ISR collection assets provide SA that enables the IBCT commander to set conditions and maneuver IBCT combat power and effects to mitigate threat.

IBCT — interim brigade combat team
 RSTA — reconnaissance, surveillance, and target acquisition
 SA — situational awareness
 NAI — named area of interest
 TAI — targeted area of interest
 GSR — ground surveillance radar
 IREMBASS — Improved Remotely Monitored Battlefield Sensor System
 GCS — ground control station
 RVT — remote video terminal



National assets detect movement of threat force.

Theater assets confirm and track movement of threat force. Intel handover to IBCT (RSTA).



Intelligence Handover Line



UAV identifies and tracks advancing or stationary threat force.



GSR/IREMBASS monitors avenues of approach.



Mortar section provides obscuration/suppression for recce section exfiltration.



GCS/RVT provides commander real-time imagery of threat advance or target area.



Squadron assets locate, identify, and track movement of threat force to provide IBCT early warning. Prepared to shape battlespace with employment of organic and operational fires or effects.



Dismounted recce section infiltrates and occupy OPs. Conducts patrols to locate, identify, track, and report on threat forces to enable IBCT decisive action. Maneuvers infantry forces, employs organic fires, provides terminal guidance for operational fires, lases for PGMs, and provides combat assessment.

Prophet collects signals intelligence from advancing or stationary threat force.

Figure 1. ISR Concept

and command and control his unit.

Each subordinate element in the IBCT contributes to ISR operations. Intelligence is “(1) the product resulting from the collection, integration, analysis, evaluation, and interpretation of available information concerning the threat or environment, or (2) information and knowledge about an adversary obtained through observation, investigation, analysis, or understanding.”⁷³ The term surveillance is defined as “the systematic observation of aerospace, surface, or subsurface areas, places, persons, or things, by visual, aural, electronic, photographic, or other means.”⁷⁴ Reconnaissance is defined as “a mission undertaken to obtain, by visual observation or other detection methods, information about the activities and resources of an enemy or potential enemy or to secure data concerning the meteorological, hydrographic, or geographic characteristics of a particular area.”⁷⁵

Information can be collected by any of the brigade's assets and disseminated through ABCS and FBCB2. However, the subordinate unit that is primarily responsible for ISR operations is the IBCT's recce squadron, which has a variety of information-collection assets that gives the brigade a robust reconnaissance, surveillance, and target acquisition capability. The squadron can provide in-

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telligence information through various means such as human intelligence, signals intelligence, imagery intelligence, measurement and signature intelligence, and the ability to access intelligence information from theater or higher intelligence sources. Collectively, the squadron's assets are fully capable of providing the IBCT with timely and accurate threat and environment information. This is a very important point to remember when discussing the squadron's capabilities; the squadron was designed to operate as a system of systems. Individually, each of the squadron's assets are effective in collecting information, but the synergy achieved with each of these assets working in concert cannot be overstated.

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FBCB2. These two systems work in concert to provide continuous friendly (Blue) and enemy (Red) SA as well as to facilitate detailed coordination and more rapid dissemination of information and mission orders. When intelligence information is reported via these two systems, it is not as important to know who reported the information as it is to know that the information is timely and accurate. Having this confidence and trust in the information reported is essential to avoid micromanaging individual assets or systems. It is the squadron commander's responsibility to arrange collection assets and activities in time, space, and purpose to provide timely and accurate reports to the brigade commander.

Previously, there were several methods for employing recce forces. The commander had to understand which method he would use to influence the planning process. Additionally, subordinate recce forces had to understand which method the commander preferred because this drove the amount of planning and preparation required to execute the intelligence-collection operation. This understanding also provided insight into how the collected intelligence information would influence the overall mission execution.

The first method of employing ISR forces is reconnaissance push. This method calls for recce forces to be deployed early in the planning process. The brigade staff uses the intelligence information collected to develop the plan. This technique requires the staff to develop facts and assumptions on the enemy early enough to focus the recce effort. These facts and assumptions are generally based on

a predictive analysis of the enemy and a thorough intelligence preparation of the battlefield (IPB). As recce forces confirm or deny facts and assumptions, this intelligence information is reported back to the staff to complete the plan. Reconnaissance push requires a detailed intelligence-collection plan to be developed before planning the main body's mission, and the intelligence information must be gathered and reported in time to influence the planning process.

The second method of employing recce forces is command push. This method is similar to reconnaissance push as collected intelligence information is used to develop the main body's plan. The difference calls for the brigade staff to develop several detailed main body courses of action (COAs) before deploying reconnaissance forces. Recce forces are then deployed to gather detailed information on enemy strengths and weaknesses. The commander uses the intelligence information collected to select the appropriate COA, massing his strengths against enemy weaknesses.

The third method is reconnaissance pull. This method also calls for recce forces to identify enemy weaknesses so the main body can exploit them. The staff develops a flexible plan, based on several possible COAs, driven by the commander's intent. To execute reconnaissance pull, the commander must ensure that all subordinates understand his intent for the operation because this type of operation calls for decentralized, but synchronized and integrated, execution. The plan allows for maximum flexibility as recce forces precede and continually place the main body in a position of advantage against identified

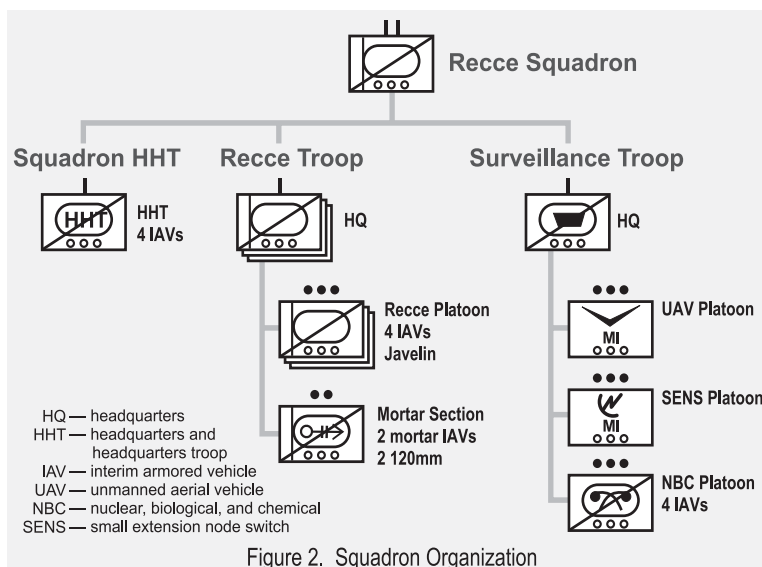


Figure 2. Squadron Organization

enemy weaknesses. The commander uses a series of decision points based on the intelligence read to maneuver his forces.

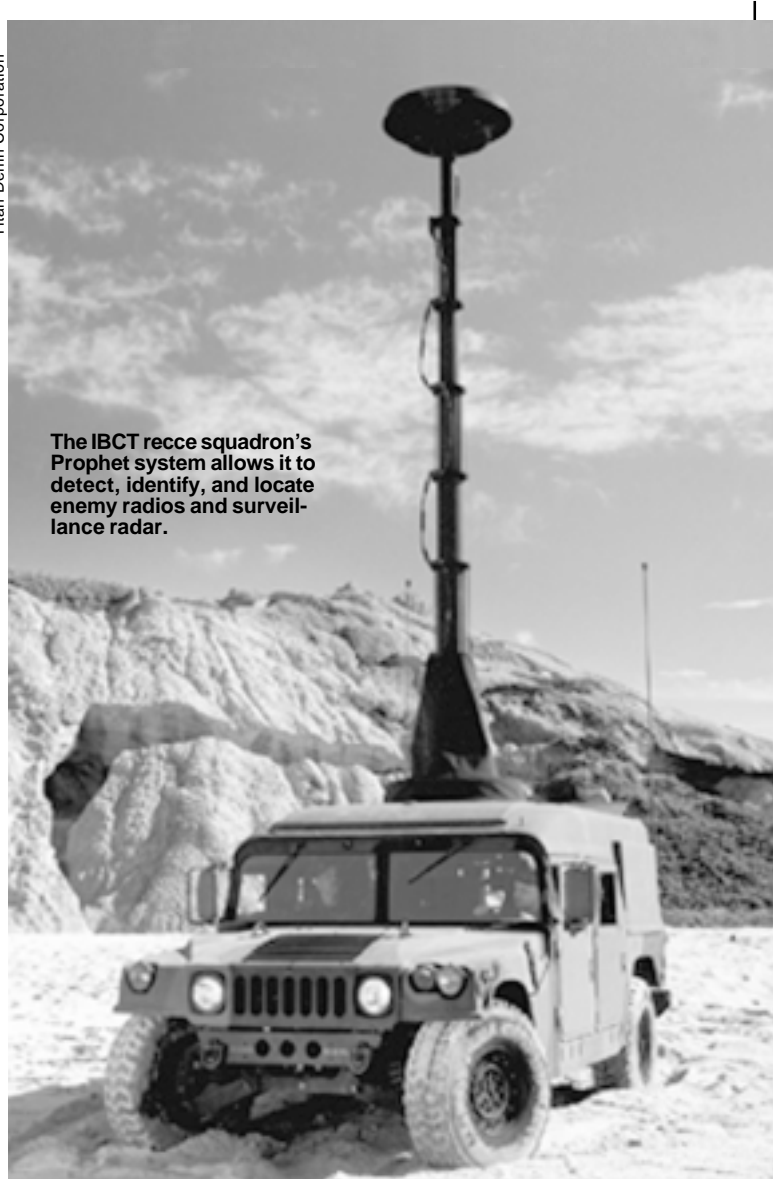
With the development of the IBC, and by leveraging computer and communications technology, a new method of employing the squadron has emerged. This new method, ISR push, combines the method of employing recce forces similar to reconnaissance push with a relationship between the squadron and main body forces similar to reconnaissance pull. More specifically, the squadron will be employed very early in an operation to collect the relevant information needed to develop a detailed plan for the main body. However, due to the enhanced connectivity ABCS and advanced communication systems provide, the squadron will report near-real-time information to provide a common operating picture and increased SA to the brigade. This information will provide the IBC commander with the intelligence information needed to gain positional advantage over the enemy, allowing him to refine a current plan or develop a completely new plan based on changing battlefield conditions.

To achieve information superiority in full-spectrum operations, commanders and their staffs plan and direct three specific types of operations or functions: ISR operations, information management, and information operations. The IBC squadron specifically contributes to ISR in full-spectrum operations by—

- Conducting recce to provide relevant information to the commander to develop and maintain a comprehensive picture of the threat and monitor likely threat COAs.
- Providing security to deny the threat information about friendly forces.
- Contributing to battlefield deception to influence the opposing force commander's perceptions, plan, and actions to gain the initiative.
- Providing timely and accurate information to deny the threat the ability to deceive friendly forces.
- Collecting information and interacting with neutral forces and noncombatants to discern their support for friendly forces' missions and activities.

The squadron provides a variety of intelligence information to the IBC commander and subordinate battalions that enables successful combat operations. The squadron's unique capabilities are designed to work in concert with the unique capability of one asset offsetting the limitations of other assets. The squadron's assets follow:

- Recce sections. The squadron can employ up to 18 sections of scouts on the battlefield to observe



The IBC recce squadron's Prophet system allows it to detect, identify, and locate enemy radios and surveillance radar.

During the planning process, specific information requirements (SIR) needed to answer the commander's priority intelligence requirements (PIR) are also developed. The planning results in a scheme of maneuver to employ and focus ISR assets on targeted areas of interest and named areas of interest, and a scheme for employing lethal and nonlethal effects.

designated areas and collect intelligence information. These sections not only collect conventionally understood human intelligence but also collect detailed information on the local populace through embedded counterintelligence agents.

- Ground surveillance radar and remote battlefield sensors. These assets provide the ability to collect and report measurement and signature intelligence.
- Radio intercept. The organic Prophet signals

intelligence and electronic warfare system allows the squadron to collect and report signals intelligence.

- Tactical unmanned aerial vehicle (TUAV). The Shadow TUAV enables the squadron to collect and report imagery intelligence.

- Fox nuclear, biological, and chemical (NBC) reconnaissance vehicle. This system allows the squadron to collect and report NBC presence on the battlefield.

At the squadron level, ISR planning is conducted to provide mission orders to the squadron's subordinate troops. This includes detailed information on the likely locations, disposition, and COAs of threat forces and specific information about the operational environment and terrain. During the planning process, specific information requirements (SIR) needed to answer the commander's priority intelligence requirements (PIR) are also developed. The

planning results in a scheme of maneuver to employ and focus ISR assets on targeted areas of interest (TAIs) and named areas of interest (NAIs), and a scheme for employing lethal and nonlethal effects. The planning also ensures that an effective communications architecture is established and reporting requirements are defined to support the ISR operation. Several keys to successful ISR planning follow:

- A clear commander's intent and defined PIR.
- Being adept at conducting IPB.
- Being proficient at determining likely threat actions through predictive analysis.
- Developing threat situational and event templates based on predictive analysis.
- Issuing a well-planned and coordinated ISR collection plan.
- Conducting a thorough ISR rehearsal.
- Deploying ISR forces early enough to infiltrate and execute the ISR operation.

The squadron develops the ISR collection plan based on three requirements: intelligence acquisition tasks from the higher headquarters' collection plan or tasks to subordinate units, internally driven PIR based on the squadron commander's information requirements, and requests for information from subordinate troops. The squadron staff then develops the ISR plan and provides a copy to the brigade for the S2 and ISR integration team to monitor and direct collection activities. The collaborative planning tools embedded in ABCS will maximize the squadron staff's ability to conduct parallel ISR planning with the IBCT staff.

The squadron's reach capability, using Trojan Spirit, can provide the squadron commander and staff with additional information they will need to plan the operation. However, close coordination with

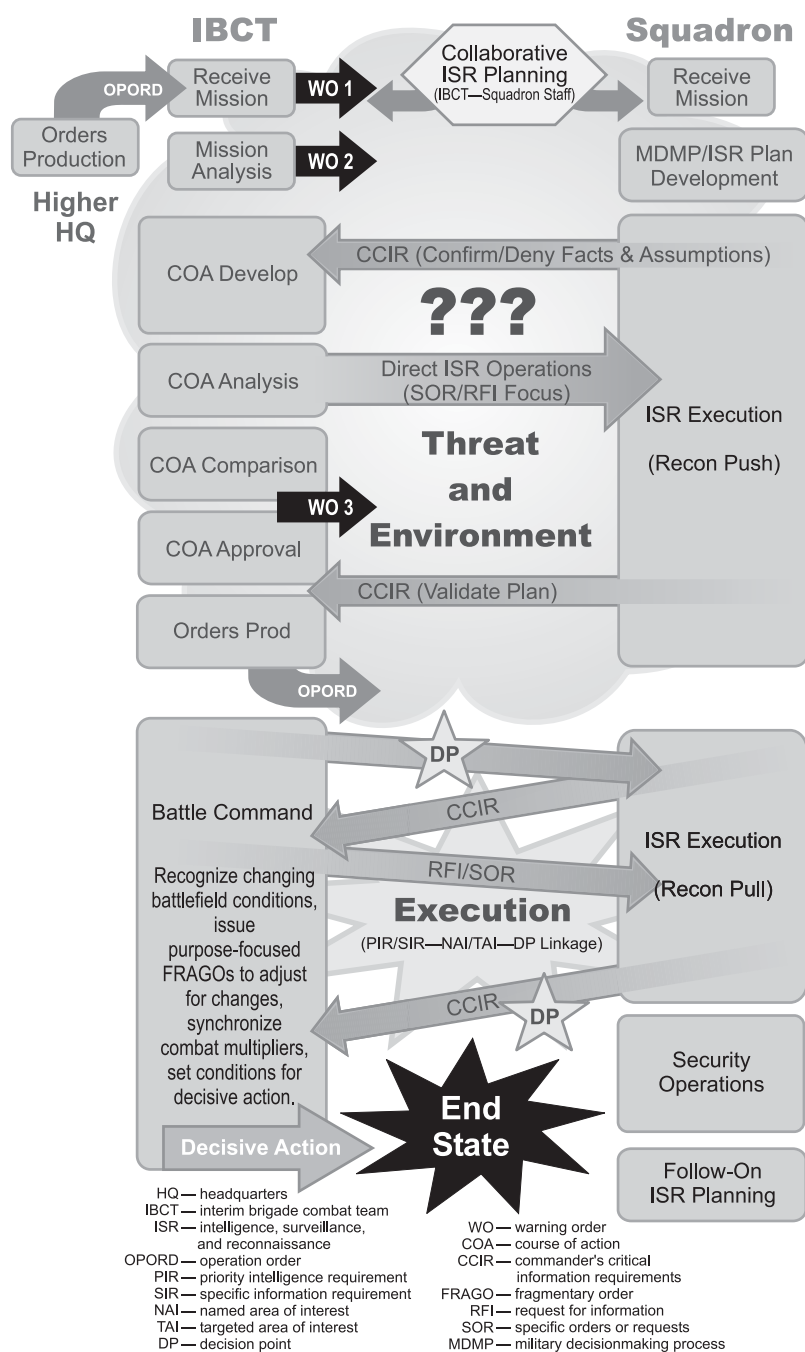


Figure 3. ISR Planning/Operations Within the IBCT—ISR Push

the brigade staff is required to ensure that valuable reach bandwidth is not consumed by requesting redundant intelligence products. The bottom line is that the squadron staff can begin detailed ISR planning based solely on clear guidance from the IBCT commander and an understanding of the commander's intelligence requirements. Developing the ISR collection plan early allows the squadron additional time to deploy into the rear area of operations (AO).

The recon squadron staff, in close coordination with the IBCT staff, plans ISR operations to assign appropriate intelligence-collection tasks to subordinate squadron assets. These assets develop information that satisfies the intelligence requirements the commander has established. ISR planning, at both the squadron and brigade levels, is conducted for several purposes. The brigade must clearly articulate the information requirements the IBCT commander needs to make decisions to maneuver the brigade or employ effects. The plan also provides the framework and integration of combat multipliers for the squadron to prosecute critical targets with both lethal and nonlethal effects.

The collaborative planning tools that are part of the maneuver control system and FBCB2's mission planning message function will greatly enhance parallel ISR planning. As information is developed at the brigade level, it can quickly be sent to the squadron staff so it can begin planning at its level. The messaging and whiteboard functions allow brigade- and squadron-level staff officers to work on mission requirements and planning considerations in a near-real-time environment while being physically separated by extended distances. The same messaging functions, the SunForum whiteboard, and videoteleconferencing functions allow the squadron commander and staff to quickly receive the IBCT commander's guidance and intent. These functions also facilitate the staff's ability to integrate and synchronize ISR assets and combat multipliers. As these collaborative planning tools are relatively new, both the IBCT staff and the squadron staff must develop an effective standing operating procedure (SOP) that outlines which tools will be used for planning, how the collaborative tools are organized to facilitate sharing information, and what types of orders will be produced using these tools.

It may no longer be necessary to develop a complete five-paragraph operation order for each ISR operation, but it is critical that the collaborative planning tools allow the staffs to more quickly develop specifically tailored orders that include only the es-

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sential information for mission preparation and execution. These planning tools also allow the staff to more rapidly produce detailed fragmentary orders that the squadron can use to execute ISR operations. However, the SOP developed must be thoroughly developed and personnel fully trained for these planning tools to enhance the staff's ability to plan an operation in a shorter time.

After receiving the commander's guidance and intent for the ISR operation, the first step in ISR planning is conducting IPB. The S2 and the ISR integration team should maximize reach capabilities to gather intelligence products to assist in completing the initial steps of the IPB. The most useful IPB product needed for successful ISR planning is a threat event template. The threat event template should depict where threat activity will occur, in relationship to friendly activities, in time and space. The information needed to develop this template is derived from predictive analysis—the process of analyzing and integrating known facts about the threat to determine the threat's likely actions. Intelligence information to support predictive analysis comes from a variety of sources and should be accessible through the joint common ABCS database.

In an immature theater, where little information may be known about the threat, the commander and S2 must make an educated guess on the likely actions the threat will take based on the current situation. Once developed, the threat event template drives the ISR collection plan. Likely threat locations or avenues of approach now become the NAIs or TAIs on which ISR forces focus their reconnaissance and surveillance. SIR provide ISR forces with the exact information, such as threat composition, disposition, and likely activities, they are to identify and report on.

On the future battlefield, which will be characterized as nonlinear and noncontiguous, ISR operations

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will be conducted within a specific area that focuses collection assets on specific ISR objectives. When conducting recce operations, the squadron should be given one, or a series of, ISR AO within which the squadron or its troops will conduct operations. This area must be large enough to facilitate ISR operations, and designating NAIs and TAIs provides further ISR focus. On the noncontiguous battlefield of the future, it is conceivable that the ISR AO could overlap with other maneuver units' AOs. Close coordination and continuous communications will be required between maneuver units and the recce squadron.

The ISR AO serves a similar function when conducting security operations. The new ISR AO is redefined as the area that begins at the boundary of the main body's AO and extends, in multiple directions, as far forward as necessary for ISR forces to collect the intelligence information needed to answer the IBCT commander's PIR. Forces in the ISR AO locate, identify, and track enemy forces; furnish information on the terrain and enemy; delay, deceive, and disrupt the enemy; and provide early warning to main body forces. As with recce operations, a greater level of coordination and communication is required between maneuver forces and the recce squadron.

Although the definitions of surveillance and recce sound rather sophisticated and would subsequently complicate ISR operations, these operations are fairly simple. The S2 and S3 develop a plan, based

on IPB products and the commander's information requirements, that directs squadron assets where to look for threat activity (NAI); when to look for threat activity (threat event template or predictive analysis); and exactly what threat activity to look for (PIR and SIR).

The squadron then deploys into the recce AO, in accordance with the respective tactics, techniques, and procedures, and looks for a specific threat activity at the specified place and time. Once the squadron confirms or denies threat activity, it quickly reports the information to the commander so he can make tactical decisions for employing his main body forces. ISR operations tell the IBCT commander what he needs to know in time for the brigade to act. The ISR operation's success or failure directly affects the success or failure of the IBCT's mission.

In the future, as the Army gets smaller, there will be a higher demand for accurate and timely battlefield reports on the threat's size, location, and disposition. The recce squadron will provide the commanders within the IBCT with the critical intelligence information needed to employ this smaller force over a larger battlespace. This makes it even more crucial that commanders and staffs are proficient in planning and executing ISR operations.

The IBCT recce squadron provides the commander with an effective ISR collection asset. Through successfully planning and executing ISR operations, the IBCT commander will gain the information superiority he needs to conduct decisive and shaping operations with the brigade. However, to successfully execute ISR operations, the commander and staff must develop a complete and comprehensive ISR collection plan to support the brigade commander's decisionmaking process. By leveraging computer and communications technology, and thoroughly planning and preparing for ISR operations, the recce squadron will be a major contributor to the IBCT's success. **MR**

NOTES

1. U.S. Army Field Manual (FM) 3-55, *Reconnaissance Operations* (Washington, DC: U.S. Government Printing Office [GPO], TBP).
2. FM 3-0, *Operations* (Washington, DC: GPO, 14 June 2001).
3. *Ibid.*, 11-7.
4. *Ibid.*, 11-8.
5. *Ibid.*, 11-9.

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